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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/635,677	KOMATSU, YOSHIHARU
	Examiner	Art Unit	
	APRIL Y. SHAN	2135	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 March 2008</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-72</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-72</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>7 August 2003</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   A Request for Continued Examination under 37 CFR 1.114, including the fee set forth in 37

CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR

1.17(e) has been timely paid, the finality of the previous office action has been withdrawn

pursuant to 37 CFR 1.114. Applicant's submission filed on 03 March 2008 has been

entered.

2.   Claims 1, 2 and 49 – 72 have been amended. Claims 1-72 are currently pending in the

present application. Applicant's amendments and argument have been fully considered,

but are moot in view of new ground rejection as set forth below.

3.   Any objection/rejection not repeated below is withdrawn due to Applicant's amendment.

Drawings

4.   The drawings are objected to because they fail to show necessary textual labels of

features or symbols or steps in Fig. 3, Fig. 7 and Fig. 11 as described in the specification/claims. A

descriptive textual label for each numbered element in Fig. 3, Fig. 7 and Fig. 11 are needed to fully

and better understand these figures without substantial analysis of the detailed specification. Any

structural detail that is of sufficient importance to be described should be shown in the drawing.

Claim Objections

5.   Applicant is advised that should claims 1-3 and 5, claims 25-27 and 29, claims 49-51 and 53,

claims 4 and 6, claims 28 and 30 and claims 52-54 be found allowable, respectively, will be objected

to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are

duplicates or else are so close in content that they both cover the same thing, despite a slight

difference in wording, it is proper after allowing one claim to object to the other as being a substantial

duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject
> matter which the applicant regards as his invention.

7.   Claims 7-12, 19-24, 31-36, 43-48, 55-60 and 67-72 rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

        As per **claims 7 and 8**, "...further comprising a module for having the external device...that

uniquely identifies **the external device** as corresponding...if **the external device**....storing

information" is being recited. However, in the independent claims 1 and 2, two external devices are

being recited. Then, which external device the Applicant is referring to? the first external device or

the second external device? In order to further exam the merits of the claims and in view of

Applicant's original disclosure (for example, Fig. 4 and Fig. 5), the examiner assumes the first

external device and the second external device are the same devices and the first external device is

using as a reference device in order to register device information in the memory of the electronic

device.

        As per **claims 19-20**, "a module...that uniquely identifies the **external device**...if the **external**

device" is being recited. However, in the independent claims 1 and 2, two external devices are being

recited. Then, which external device the Applicant is referring to? The first external device or the second external device? In order to further exam the merits of the claims and in view of Applicant's original disclosure (for example, Fig. 4 and Fig. 5), the examiner assumes the first external device and the second external device are the same devices and the first external device is using as a reference device in order to register device information in the memory of the electronic device.

As per **claims 31-32**, "...further comprising a step fro having the external device information that uniquely identifies the external device....if the external device" is being recited. However, in the independent claims 25 and 26, two external devices are being recited. Then, which external device the Applicant is referring to? The first external device or the second external device? In order to further exam the merits of the claims and in view of Applicant's original disclosure (for example, Fig. 4 and Fig. 5), the examiner assumes the first external device and the second external device are the same devices and the first external device is using as a reference device in order to register device information in the memory of the electronic device.

As per **claims 43-44**, "...that uniquely identifies the external device...if the external device..." is being recited. However, in the independent claims 25 and 26, two external devices are being recited. Then, which external device the Applicant is referring to? The first external device or the second external device? In order to further exam the merits of the claims and in view of Applicant's original disclosure (for example, Fig. 4 and Fig. 5), the examiner assumes the first external device and the second external device are the same devices and the first external device is using as a reference device in order to register device information in the memory of the electronic device.

As per **claims 9-12, 21-24, 33-36, 45-48, 55-60 and 67-72,** they are rejected due to similar reasons of rejecting claims above.

Examiner's Interpretation

8.   Please note in par. [0055] - [0056], [0060] and fig. 2 of the original disclosure, the

Applicant discloses claim limitation "associating the function limit with the device identification of the

first external device to obtain a cryptographic key" is "The device identification information is used as

a cryptographic key…More specifically, the device identification that indicates a specific external

device is previously stored..as a cryptographic key" and "a serial number is given as device

identification information…Lot No…". "…The external device information obtaining section 103

obtains device identification information (…serial number, etc.) The comparator 104 compares

device identification information registered as a cryptographic key. Clearly, to a person with ordinary

skill in the art at the time of the invention, it is reasonable to interpret the claim limitation "associating

the function limit with the device identification of the first external device to obtain a cryptographic

key" in view of Applicant's original disclosure, is obtaining external device's identification information

as a cryptographic key (i.e. device serial number and etc) in order to used as the basis for controlling

the function limit operation (i.e. enable or disable)

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
>
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
>
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill
>
> in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
>
> invention was made.

10.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.

      2.   Ascertaining the differences between the prior art and the claims at issue.

      3.   Resolving the level of ordinary skill in the pertinent art.

      4.   Considering objective evidence present in the application indicating obviousness or

          nonobviousness.

11.   Claims 1-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olarig et al. (U.S.

Patent No. 6,032,257) in view of Harada et al. (U.S. Patent No. 7,093,300).

      As per **claims 1 and 25**, Olarig et al. discloses a method/electric apparatus for preventing the

unauthorized use of electric equipment including an interface to connect an external device thereto

comprising:

      a function limiting step for setting a function limit to the electric apparatus so that at least part

of functions of the electric apparatus becomes unavailable (step 209 in fig. 2);

      a first device identification information obtaining step for obtaining device identification from an

external device connected via the interface to the electric apparatus to identify the external device

(step 400 in fig. 4. Please note user input devices keyboard 835 or mouse 840 in fig. 1 is an

external device connected via the interface manager 830 to the electric apparatus (i.e. computer).

Please note component verification (first-time install) corresponds to Applicant's first device

identification information obtaining step);

a step for associating the function limit with the device identification information obtained at the first device identification information obtaining step to obtain a cryptographic key (step 406 in fig. 4. Please note authentication code, which verifies both the device serial number and the site code of the system (e.g. col. 3, lines 17-30) corresponds to Applicant's cryptographic key. Please also see above examiner's interpretation for this claim limitation);

a step for storing the cryptographic key in a memory ("It should be noted that after the first-time installation of an authorized device, two numbers are stored on the device: an encoded number based upon the device serial number, and the device serial number" - e.g. col. 5, lines 27 – 30 and step 412 in fig. 4);

a second device identification information obtaining step for obtaining a second device identification from a second external device connected via the interface to the electric apparatus to identify the second external device (step 203 in fig. 2. Please note component verification without first-time installs corresponds to Applicant's second device identification information obtaining step.);

a determining step for determining whether the second device identification information obtained at the second device identification information obtaining step matches cryptographic key stored in the memory (step 212 and 221 in fig. 2).

Olarig et al. discloses disable or shift to reduced performance if it is determined at the determining step that the second device identification information obtained at the second device identification information obtaining step does not match the cryptographic key (e.g. fig. 2) and enable full capability of device if it is determined at the determining step that the second device identification information obtained at the second device identification information obtaining step match the cryptographic key (e.g. fig. 2)

However, Olarig et al. does not expressly disclose a limit canceling step for canceling the function limit set at the function limiting step if it is determined at the determining step that the second device identification information obtained at the second device identification information obtaining step matches the cryptographic key.

Harada et al. discloses a limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the information obtained at the second device identification information obtaining step matches the cryptographic key ("and inoperable state canceling means for, when it is judged by the individual code relationship judging means that the individual judgment code B2 and the individual code A22 have the predetermined second relationship, canceling the inoperable state against theft of the controlled circuit" – e.g. col. 2, lines 38 - 43).

It would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate Harada et al.'s limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the information obtained at the second device identification information obtaining step matches the cryptographic key into Olarig et al. motivated by "to provide an electronic apparatus/method of canceling the inoperable state…caused to prevent theft, can be canceled at minimal effort and cost" and "as a result, the electronic apparatus can carry out its usual intrinsic operation", as taught by Harada et al. (col. 2, lines 5-21 and col. 3, lines 28-29).

As per **claims 7 and 31,** the combined teachings of Olarig et al. and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Olarig et al. further discloses comprising for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step

when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (e.g. step 412 in fig. 4).

As per **claims 13 and 37**, the combined teachings of Olarig et al. and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Harada et al. further discloses resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 19 and 43**, the combined teachings of Olarig et al. and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Olarig et al. - Harada et al. further discloses for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (Olarig et al., - e.g. step 412 in fig. 4); and a step for resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 2-3, 5** and **26-27, 29** they are rejected using the same rationale as rejecting claims 1 and 25 above.

As **per claims 8-9, 11** and **32-33, 35**, they are rejected using the same rationale as rejecting claims 7 and 31 above.

As per **claims 14-15, 17** and **38-39, 41** they are rejected using the same rationale as rejecting claims 13 and 37 above.

As per **claims 20-21, 23** and **44-45, 47** they are rejected using the same rationale as rejecting claims 19 and 43 above.

As per **claims 49-51**, **53, 55-57, 59, 61-63, 65, 67-69 and 71**, the combined teachings of Olarig et al. and Harada et al. disclose the claimed method of steps as applied above in claims 25-27, 29, 31-33, 35, 37-39, 41, 43-45 and 47. Therefore, the combined teachings of Olarig et al. and Harada et al. disclose the claimed program built into the electric equipment for carrying out the method of steps.

As per **claims 4 and 28,** Olarig et al. discloses a method/electric apparatus for preventing the unauthorized use of electric equipment including an interface to connect an external device thereto comprising:

a function limiting step for setting a function limit to the electric apparatus so that at least part of functions of the electric apparatus becomes unavailable (step 209 in fig. 2);

a first device identification information obtaining step for obtaining device identification from an external device connected via one of the interfaces to the electric apparatus to identify the external device (e.g. various ports in fig. 1 and "step 400 in fig. 4. Please note user input devices keyboard 835 or mouse 840 in fig. 1 is an external device connected via the interface manager 830 to the electric apparatus (i.e. computer). Please note component verification (first-time install) corresponds to Applicant's first device identification information obtaining step);

a first connection route information generating step for generating first connection route information indicating which interface is used to connect the external device to the electric apparatus at the first device identification information obtaining step ("When the user receives a new device from the OEM...When the new device is installed and becomes active for the first time, it will

automatically self-program an authentication code which depends on its own serial number and on

the site code received from the system during the POST process" - e.g. col. 3, lines 59 - 64, "The

present application discloses a new method of theft protection for computers and computer related

hardware (e.g. detachable peripherals). The protected peripherals each contain a digital

authentication code which verifies both the device serial number and the site code of the system

where it is located" - e.g. col. 3, lines 18-23. Please note site code corresponds to Applicant's

connection route information indicating which interface is used);

    a step for associating the function limit with a combination of the device identification and the

connection route information to obtain a cryptographic key (step 406 in fig. 4. Please note

authentication code, which verifies both the device serial number and the site code of the system

(e.g. col. 3, lines 17-30) corresponds to Applicant's cryptographic key and col. 3, lines 59-64);

    a step for storing the cryptographic key in a memory ("It should be noted that after the first-time

installation of an authorized device, two numbers are stored on the device: an encoded number

based upon the device serial number, and the device serial number" - e.g. col. 5, lines 27 – 30

and step 412 in fig. 4);

    a second device identification information obtaining step for obtaining a second device

identification from a second external device connected via one of the interfaces to the electric

apparatus to identify the second external device (step 203 in fig. 2. Please note component

verification without first-time installs corresponds to Applicant's second device identification

information obtaining step and various ports in fig. 1);

    a second connection route information generating step for generating second connection route

information indicating which interface is used to connect the second external device to the electric

apparatus at the second device identification information obtaining step ("During normal operation,

the user powers-up the system and the POST process executes. During the POST, the system
rotates through all devices executing a handshaking scheme. Unless this is a first-time
installation, each protected device will contain readable digital values for both: its own serial
number; and an authentication code derived from its serial number in combination with the site
code of the system or network where the protected device has been installed. At power-up, the
device requires the correct site code, as verified by its authentication code..." - e.g. col. 3, lines 45
-55. Please note each protected device's site code corresponds to Applicant's second connection
route information indicating which interface is used);

a determining step for determining whether a second combination of the second device
identification information obtained at the second device identification information obtaining step
and the second connection route information matches cryptographic key stored in the memory
(steps 212, 215 and 221 in fig. 2 and col. 5, lines 25 - 63).

Olarig et al. discloses disable or shift to reduced performance if it is determined at the
determining step that the second combination of the information obtained at the second device
identification information obtaining step and the second connection route information does not
match the cryptographic key (e.g. fig. 2) and enable full capability of device if it is determined at
the determining step that the second combination of the information obtained at the second device
identification information obtaining step and the second connection route information match the
cryptographic key (e.g. fig. 2)

However, Olarig et al. does not expressly disclose a limit canceling step for canceling the
function limit set at the function limiting step.

Harada et al. discloses a limit canceling step for canceling the function limit set at the function
limiting step ("and inoperable state canceling means for, when it is judged by the individual code

relationship judging means that the individual judgment code B2 and the individual code A22 have the predetermined second relationship, canceling the inoperable state against theft of the controlled circuit" – e.g. col. 2, lines 38 - 43).

It would have been obvious to a person with ordinary skill in the art at the time of the invention to incorporate Harada et al.'s limit canceling step for canceling the function limit set at the function limiting step into Olarig et al. motivated by "to provide an electronic apparatus/method of canceling the inoperable state...caused to prevent theft, can be canceled at minimal effort and cost" and "as a result, the electronic apparatus can carry out its usual intrinsic operation", as taught by Harada et al. (col. 2, lines 5-21 and col. 3, lines 28-29).

As per **claims 10 and 34**, the combined teaching of Olarig et al - Harada et al. discloses a method/electric equipment as applied above in claims 4 and 28. Olarig et al. further discloses comprising for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (e.g. step 412 in fig. 4).

As per **claims 16 and 40**, the combined teaching of Olarig et al. - Harada et al. discloses a method/electric equipment as applied above in claims 4 and 28. Harada et al. further discloses resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 22 and 46**, the combined teaching of Olarig et al. - Harada et al. discloses a method/electric equipment as applied above in claims 4 and 28. Olarig et al. - Harada et al. further discloses for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step

when the external device connected to the electric equipment at the first device identification

information obtaining step is capable of storing information (Olarig et al., - e.g. step 412 in fig. 4); and

a step for resetting the function limit when a prescribed period of time has passed after the

determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 6 and 30**, they are rejected using the same rationale as rejecting claims 4 and

28 above.

As per **claims 12 and 36**, they are rejected using the same rationale as rejecting claims 10

and 34 above.

As per **claims 18 and 42**, they are rejected using the same rationale as rejecting claims 16

and 40 above.

As per **claims 24 and 48**, they are rejected using the same rationale as rejecting claims 22

and 46 above.

As per **claims 52, 54, 58, 60, 64, 66, 70 and 72**, the combined teaching of Olarig and

Harada et al. discloses the claimed method of steps as applied above in claims 28, 30, 34, 36, 40, 42,

46 and 48. Therefore, the combined teachings of Olarig and Harada discloses the claimed program

built into the electric equipment for carrying out the method of steps.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. (See PTO -892)

The Applicant is **strongly urged** to reviewed all the references cited by the examiner in order

to response to the current Office Action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to APRIL Y. SHAN whose telephone number is (571)270-1014. The examiner can

normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-

786-9199 (IN USA OR CANADA) or 571-272-1000.

/April Y Shan/
Examiner, Art Unit 2135

        /KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135